

UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS

_____)	CIVIL ACTION NO.:
ROBERT SOLOMON,)	
)	
Plaintiff,)	
)	
v.)	<u>COMPLAINT AND</u>
)	<u>PLAINTIFF'S DEMAND</u>
MONSANTO COMPANY,)	<u>FOR A TRIAL BY JURY</u>
)	
Defendant.)	
_____)	

NATURE OF THE CASE

1. This case arises out of Monsanto Company's ("Monsanto") wrongful conduct in connection with the design, development, manufacture, testing, packing, packaging, promoting, marketing, advertising, distribution, labeling, and sale of the herbicide Roundup. The Plaintiff in this action seeks recovery for damages as a result of developing Non-Hodgkin's Lymphoma, which was directly and proximately caused by such wrongful conduct by the Defendant, the unreasonably dangerous and defective nature of Roundup and its active ingredient, glyphosate, and the attendant effects of developing Non-Hodgkin's Lymphoma. Glyphosate has been found to be carcinogenic, linked to causing various forms of cancer, in particular Non-Hodgkin's Lymphoma. As such, Roundup is dangerous to human health and unfit to be marketed and sold in commerce, particularly without proper warnings and directions as to the dangers associated with its use. The Plaintiff, Robert Solomon, who used Roundup extensively, did not know of an association between exposure to Roundup and the increased risk of developing Non-Hodgkin's Lymphoma until well after July 29, 2015, when the International Agency for Research on Cancer

(“IARC”), an agency of the World Health Organization, first published its evaluation of glyphosate. All of the claims involve common questions of law and fact and share legal and medical issues that arise out of the Plaintiff’s exposures to Roundup.

PARTY PLAINTIFF

2. The Plaintiff, ROBERT SOLOMON, is domiciled in Massachusetts and resides in the Town of Hull in Plymouth County. Plaintiff Robert Solomon was first exposed to Roundup in the Commonwealth of Massachusetts from approximately 1978 through 2000, and again from approximately 2005 through 2008. Plaintiff Robert Solomon was diagnosed with Non-Hodgkin’s Lymphoma on or about December 6, 2013.

PARTY DEFENDANT

3. Defendant, MONSANTO COMPANY, is a Delaware corporation with its principal place of business in St. Louis, Missouri. Monsanto Company is listed as Massachusetts Secretary of State Entity No. 000722386, in “active” status. Monsanto Company has conducted business in and has derived substantial revenue from the Commonwealth of Massachusetts. At all times relevant to this complaint, Monsanto was the entity that discovered the herbicidal properties of glyphosate and the manufacturer of Roundup, which contains the active ingredient glyphosate and the surfactant POEA, as well as adjuvants and other "inert" ingredients.

JURISDICTION AND VENUE

4. This Court has personal jurisdiction over Monsanto under 28 U.S.C. § 1391(c) because Monsanto transacts business in the Commonwealth of Massachusetts and is a corporation doing business within the Commonwealth of Massachusetts. Monsanto knows that its Roundup products are and were sold throughout Massachusetts, and more specifically, caused Roundup to be sold to Plaintiff in Massachusetts. In addition, Monsanto maintains sufficient

contacts with the Commonwealth of Massachusetts such that this Court's exercise of personal jurisdiction over it does not offend traditional notions of fair play and substantial justice.

5. Monsanto advertises and sells goods, specifically Roundup, throughout Massachusetts. It derives substantial revenue from goods and products used in Massachusetts. It expected its acts to have consequences within Massachusetts and derived substantial revenue from interstate commerce. Specific to this case, Monsanto engaged in the business of developing, manufacturing, testing, packaging, marketing, distributing, labeling, and selling Roundup. Monsanto purposefully availed itself of the privilege of conducting activities within Massachusetts, thus invoking the benefits and protections of its laws.

6. This Court has subject matter jurisdiction over this action under 28 U.S.C. § 1332 because there is complete diversity of citizenship between Plaintiffs and Defendant. Monsanto is a citizen of Delaware (where it is incorporated) and Missouri (where it has its principal place of business). Plaintiff is a citizen of Massachusetts, and the amount in controversy exceeds \$75,000 exclusive of interest and costs.

7. Venue is proper in this District under 28 U.S.C. § 1391(b)(2) because Plaintiff was exposed to Roundup in this District.

8. The Court also has supplemental jurisdiction pursuant to 28 U.S.C. § 1367.

FACTUAL BACKGROUND

9. At all relevant times, Monsanto Company designed, researched, manufactured, tested, advertised, promoted, marketed, sold, and distributed the commercial herbicide Roundup.

10. "Roundup" refers to all formulations of Monsanto's Roundup products, including, but not limited to, Roundup Concentrate Poison Ivy and Tough Brush Killer 1, Roundup Custom Herbicide, Roundup D-Pak Herbicide, Roundup Dry Concentrate, Roundup Export Herbicide,

Roundup Fence & Hard Edger 1, Roundup Garden Foam Weed & Grass Killer, Roundup Grass and Weed Killer, Roundup Herbicide, Roundup Original 2k Herbicide, Roundup Original II Herbicide, Roundup Pro Concentrate, Roundup Prodry Herbicide, Roundup Promas, Roundup Quik Stik Grass and Weed Killer, Roundup Quickpro Herbicide, Roundup Rainfast Concentrate Weed & Grass Killer, Roundup Rainfast Super Concentrate Weed & Grass Killer, Roundup Ready-to-Use Extended Control Weed & Grass Killer 1 Plus Weed Preventer, Roundup Ready-to-Use Weed & Grass Killer, Roundup Ready-to-Use Weed and Grass Killer 2, Roundup Ultra Dry, Roundup Ultra Herbicide, Roundup Ultramax, Roundup VM Herbicide, Roundup Weed & Grass Killer Concentrate, Roundup Weed & Grass Killer Concentrate Plus, Roundup Weed & Grass Killer Ready-to-Use Plus, Roundup Weed & Grass Killer Super Concentrate, Roundup Weed & Grass Killer 1 Ready-to-Use, Roundup WSD Water Soluble Dry Herbicide Deploy Dry Herbicide, or any other formulation containing the active ingredient glyphosate.

11. Monsanto is a multinational agricultural biotechnology corporation based in St. Louis, Missouri. It is the world's leading producer of glyphosate.

12. Monsanto discovered the herbicidal properties of glyphosate during the 1970s and developed it as a broad-spectrum herbicide used to kill weeds and grasses known to compete with commercial crops grown around the globe.

13. Glyphosate is a "non-selective" herbicide, meaning it kills indiscriminately based only on whether a given organism produces a specific enzyme, 5-enolpyruvylshikimic acid-3-phosphate synthase, known as EPSP synthase.

14. Glyphosate inhibits the enzyme 5-enolpyruvylshikimic acid-3 phosphate synthase that interferes with the shikimic pathway in plants, resulting in the accumulation of shikimic acid in plant tissue and ultimately plant death.

15. Sprayed as a liquid, plants absorb glyphosate directly through their leaves, stems, and roots; and detectable quantities accumulate in the plant tissue.

16. Each year, approximately 250 million pounds of glyphosate are sprayed on crops, commercial nurseries, suburban lawns, parks, and golf courses. This increase in use has been driven largely by the proliferation of “Roundup Ready” crops, which have been genetically engineered to resist the activity of glyphosate.

17. Monsanto is responsible for the development, manufacture, marketing, sale, and distribution of Roundup Ready seeds. By 2009, Monsanto was the world’s leading producer of Roundup Ready seeds. In 2010, roughly 70% of corn and cotton and 90% of soybean fields in the United States were grown with Roundup Ready seeds.

18. Roundup was introduced in 1974 and is today one of the world’s most widely-used herbicides. Monsanto’s glyphosate products are registered in more than 130 countries and are approved for weed control in more than 100 crops. No other herbicide active ingredient compares in terms of number of uses.¹

19. In all this time, farmers, consumers, and the public have used Roundup unaware it is a carcinogen.

REGISTRATION OF HERBICIDES UNDER FEDERAL LAW

20. The manufacture, formulation, and distribution of herbicides, such as Roundup, are regulated under the Federal Insecticide, Fungicide, and Rodenticide Act (“FIFRA”), 7 U.S.C. § 136 *et seq.* FIFRA requires that all pesticides be registered with the Environmental Protection Agency (“EPA”) prior to their distribution, sale, or use, except as described by FIFRA 7 U.S.C. § 136a(a).

¹ *Backgrounder*, History of Monsanto’s Glyphosate Herbicides, June 2005, available at www.monsanto.com/products/documents/glyphosate-background-materials/back_ground.pdf

21. The EPA requires a variety of tests as part of the registration process to evaluate the potential for exposure to pesticides, toxicity to people and other potential non-target organisms, and other adverse effects on the environment. Registration by the EPA, however, is not an assurance of finding of safety. The determination the EPA makes in registering or re-registering a product is not that the product is “safe,” but rather that use of the product in accordance with its label directions “will not generally cause unreasonable adverse effects on the environment.” 7 U.S.C. § 136(a)(c)(5)(D).

22. FIFRA defines “unreasonable adverse effects on the environment” to mean “any unreasonable risk to man or the environment, taking into account the economic, social, and environmental costs and benefits of the use of any pesticide.” 7 U.S.C. § 136(bb). FIFRA thus requires the EPA to make a risk/benefit analysis in determining whether a registration should be granted or allowed to continue to be sold in commerce.

23. The EPA and Commonwealth of Massachusetts registered Roundup for distribution, sale, and manufacture in the United States and the Commonwealth of Massachusetts.

24. FIFRA generally requires that the registrant, here Monsanto, conduct health and safety testing of pesticide products. The government is not required, nor is it able, to perform the product tests that are required of the manufacturer.

25. Each pesticide product distributed, sold, or manufactured is evaluated at the time the product is initially registered. The data necessary for registration of a pesticide has changed over time. The EPA is now in the process of re-evaluating all pesticides through a Congressionally-mandated process called “re-registration.” 7 U.S.C. § 136a-1. To evaluate these pesticides, the EPA demands the completion of additional tests and the submission of data for the

EPA's review and evaluation.

**THE IMPORTANCE OF ROUNDUP TO MONSANTO'S
MARKET DOMINANCE PROFITS**

26. The success of Roundup was key to Monsanto's continued reputation and dominance in the marketplace. Largely due to the success of Roundup sales, Monsanto's agriculture division was out-performing its chemicals division's operating income, and that gap increased yearly. But with its patent for glyphosate expiring in the United States in the year 2000, Monsanto needed a strategy to maintain its Roundup market dominance and to ward off impending competition.

27. In response, Monsanto began the development and sale of genetically engineered Roundup Ready seeds in 1996. Since Roundup Ready crops are resistant to glyphosate, farmers can spray Roundup onto their fields during the growing season without harming the crop. This allowed Monsanto to expand its market for Roundup even further; by 2000, Monsanto's biotechnology seeds were planted on more than 80 million acres worldwide and nearly 70% of American soybeans were planted from Roundup Ready seeds. It also secured Monsanto's dominant share of the glyphosate/Roundup market through a marketing strategy that coupled proprietary Roundup Ready seeds with continued sales of its Roundup herbicide.

28. Through a three-pronged strategy of increased production, decreased prices, and by coupling with Roundup Ready seeds, Roundup became Monsanto's most profitable product. In 2000, Roundup accounted for almost \$2.8 billion in sales, outselling other herbicides by a margin of five to one, and accounting for close to half of Monsanto's revenue. Today, glyphosate remains one of the world's largest herbicides by sales volume.

**MONSANTO’S FALSE REPRESENTATIONS REGARDING
THE SAFETY OF ROUNDUP**

29. In 1996, the New York Attorney General (“NYAG”) filed a lawsuit against Monsanto based on its false and misleading advertising of Roundup products. Specifically, the lawsuit challenged Monsanto’s general representation that its spray-on glyphosate-based herbicides, including Roundup, were “safer than table salt” and “practically non-toxic” to mammals, birds, and fish. Among the representations the NYAG found deceptive and misleading about the human and environmental safety of Roundup are the following:

- a. Remember that environmentally friendly Roundup herbicide is biodegradable. It won’t build up in the soil so you can use Roundup with confidence along customers’ driveways, sidewalks and fences.
- b. And remember that Roundup is biodegradable and won’t build up in the soil. That will give you the environmental confidence you need to use Roundup everywhere you’ve got a weed, brush, edging or trimming problem.
- c. Roundup biodegrades into naturally occurring elements.
- d. Remember that versatile Roundup herbicide stays where you put it. That means there’s no washing or leaching to harm customers’ shrubs or other desirable vegetation.
- e. This non-residual herbicide will not wash or leach in the soil. It ... stays where you apply it.
- f. You can apply Accord with “confidence because it will stay where you put it” it bonds tightly to soil particles, preventing leaching. Then, soon after application, soil microorganisms biodegrade Accord into natural products.
- g. Glyphosate is less toxic to rats than table salt following acute oral ingestion.
- h. Glyphosate’s safety margin is much greater than required. It has over a 1,000 fold-safety margin in food and over a 700-fold safety margin for workers who manufacture it or use it.
- i. You can feel good about using herbicides by Monsanto. They carry a toxicity category rating of ‘practically non-toxic’ as it pertains to mammals, birds and fish.

- j. “Roundup can be used where kids and pets will play and breaks down into natural material.” This ad depicts a person with his head in the ground and a pet dog standing in an area which has been treated with Roundup.²

30. On November 19, 1996, Monsanto entered into an Assurance of Discontinuance with the NYAG, in which Monsanto agreed, among other things, “to cease and desist from publishing or broadcasting any advertisements [in New York] that represent, directly or by implication” that:

- a. its glyphosate-containing pesticide products or any component thereof are safe, non-toxic, harmless or free from risk;
- b. its glyphosate-containing pesticide products or any component thereof manufactured, formulated, distributed or sold by Monsanto are biodegradable;
- c. Its glyphosate-containing pesticide products or any component thereof stay where they are applied under all circumstances and will not move through the environment by any means;
- d. Its glyphosate-containing pesticide products or any component thereof are “good” for the environment or are “known for their environmental characteristics;”
- e. Glyphosate-containing pesticide products or any component thereof are safer or less toxic than common consumer products other than herbicides; and
- f. Its glyphosate-containing products or any component thereof might be classified as “practically non-toxic.”

31. Monsanto did not alter its advertising in the same manner in any state other than New York, and on information and belief still has not done so today.

32. In 2009, France’s highest court ruled that Monsanto had not told the truth about the safety of Roundup and affirmed an earlier judgment that Monsanto had falsely advertised its herbicide Roundup as “biodegradable” and that it “left the soil clean.”³

² Attorney General of the State of New York, In the Matter of Monsanto Company, Assurance of Discontinuance Pursuant to Executive Law § 63(15)(Nov. 1996).

³ *Monsanto Guilty in ‘False Ad’ Row*, BBC, Oct. 15, 2009, available at <http://news.bbc.co.uk/2/hi/europe/8308903.stm>.

EVIDENCE OF CARCINOGENICITY IN ROUNDUP

33. As early as the 1980's Monsanto was aware of glyphosate's carcinogenic properties.

34. On March 4, 1985, a group of the EPA's Toxicology Branch published a memorandum classifying glyphosate as a Category C oncogene.⁴ Category C oncogenes are possible human carcinogens with limited evidence of carcinogenicity.

35. In 1986, the EPA issued a Registration Standard for glyphosate (NTIS PB87-103214). The Registration standard required additional phytotoxicity, environmental fate, toxicology, product chemistry, and residue chemistry studies. All of the data required was submitted and reviewed and/or waived.⁵

36. In October 1991, the EPA published a Memorandum entitled "Second Peer Review of Glyphosate." The memorandum changed glyphosate's classification to Group E (evidence of non-carcinogenicity for humans). Two peer review committee members did not concur with the conclusions of the committee and one member refused to sign.⁶

37. In addition to the toxicity of the active molecule, many studies support the hypothesis that glyphosate formulations found in Monsanto's Roundup products are more dangerous and toxic than glyphosate alone.⁷ As early as 1991, evidence existed demonstrating

⁴ Consensus Review of Glyphosate, Casewell No. 661A. March 4, 1985. United States Environmental Protection Agency.

⁵ <http://www.epa.gov/oppsrrd1/reregistration/REDs/factsheets/0178fact.pdf>.

⁶ U.S. EPA, *Memorandum, Subject: SECOND Peer Review of Glyphosate 1* (1191), available at http://www.epa.gov/pesticides/chem_search/cleared_reviews/csr_PC-103601_30-Oct-91_265.pdf

⁷ See Martinez, et al. *Oral and pulmonary toxicology of the surfactant used in Roundup herbicide*, PROC. WEST. PHARMACOL. SOC. 34:43-46 (1991); Nora Benachour, et al., *Glyphosate Formulations Induce Apoptosis and Necrosis in Human Umbilical, Embryonic, and Placental Cells*, 22 CHEM. RES. TOXICOL. 97-105 (2009), Available at <http://big.assets.huffington.com/france.pdf>; Gasnier et al. 2010, *Francisco Peixoto, Comparative effects of the Roundup and glyphosate on mitochondrial oxidative phosphorylation*, 61 CHEMOSPHERE 1115, 1122(2005), available at https://www.researchgate.net/publication/7504567_Comparative_effects_of_the_Roundup_and_glyphosate_on_mitochondrial_oxidative_phosphorylation; March 2004.

that glyphosate formulations were significantly more toxic than glyphosate alone.

38. In 2002, Julie Marc published a study entitled “Pesticide Roundup Provokes Cell Division Dysfunction at the Level of CDK1/Cyclin B Activation.”⁸ The study found that Monsanto’s Round Up caused delays in the cell cycles of sea urchins, while the same concentrations of glyphosate alone proved ineffective and did not alter cell cycles.

39. In 2004, Julie Marc published a study entitled “Glyphosate-based pesticides affect cell cycle regulation.” The study demonstrated a molecular link between glyphosate-based products and cell cycle dysregulation.⁹

40. The study noted that “cell-cycle dysregulation is a hallmark of tumor cells and human cancer. Failure in the cell-cycle checkpoints leads to genomic instability and subsequent development of cancers from the initial affected cell.” Further, “[s]ince cell cycle disorders such as cancer result from dysfunction of unique cell, it was of interest to evaluate the threshold dose of glyphosate affecting cells.”¹⁰

41. In 2005, Francisco Peixoto published a study showing that Roundup’s effects on rat liver mitochondria are much more toxic and harmful than the same concentrations of glyphosate alone.

42. The Peixoto study suggested that the harmful effects of Roundup on mitochondrial bioenergetics could not be exclusively attributed to glyphosate and could be the result of other chemicals, namely the surfactant POEA, or alternatively due to the possible synergy between glyphosate and Roundup formulation products.

⁸ Julie Marc, et al., *Pesticide Roundup Provokes Cell Division Dysfunction at the Level of CDK1/Cyclin B Activation*, 15 CHEM. RES. TOXICOL. 326-331 (2002), available at <http://pubs.acs.org/doi/full/10.1021/tx015543g>.

⁹ Julie Marc, et al., *Glyphosate-based pesticides affect cell cycle regulation*, 96 BILIOGY OF THE CELLS 245, 245-249 (2004), available at <http://onlinelibrary.wiley.com/doi/10.1016/j.biolcel.2003.11.010/epdf>.

¹⁰ Molinari, 2000; Stewart et al., 2003.

43. In 2009, Nora Benachour and Gilles-Eric Seralini published a study of the effects of Roundup and glyphosate on human umbilical, embryonic, and placental cells.

44. The study used dilution levels of Roundup and glyphosate far below agricultural recommendations, corresponding with low levels of residues in food. The study concluded that supposed “inert” ingredients, and possibly POEA, change human cell permeability and amplify toxicity of glyphosate alone. The study further suggested that determinations of glyphosate toxicity should take into account the presence of adjuvants, or those chemicals used in the formulation of the complete pesticide. The study confirmed that the adjuvants in Roundup are not inert and that Roundup is always more toxic than its active ingredient glyphosate.

45. The results of these studies were confirmed in peer-reviewed studies that were known to Monsanto.

46. Monsanto knew or should have known that Roundup is more toxic than glyphosate alone and that safety studies on Roundup, Roundup’s adjuvants and “inert” ingredients, and/or the surfactant POEA were necessary to protect the Plaintiff from Roundup.

47. Monsanto knew or should have known that tests limited to Roundup’s active ingredient glyphosate were insufficient to prove the safety of Roundup.

48. Monsanto failed to appropriately and adequately test Roundup, Roundup’s adjuvants and “inert” ingredients, and/or the surfactant POEA to protect the Plaintiff from Roundup.

49. Rather than performing appropriate tests, Monsanto relied on flawed industry-supported studies designed to protect Monsanto’s economic interest rather than the Plaintiffs and the consuming public.

50. Despite its knowledge that Roundup was considerably more dangerous than

glyphosate alone, Monsanto continued to promote Roundup as safe.

IARC CLASSIFICATION OF GLYPHOSATE

51. The International Agency for Research on Cancer (“IARC”) is the specialized intergovernmental agency that the World Health Organization (“WHO”) of the United Nations tasked with conducting and coordinating research into the causes of cancer.

52. An IARC Advisory Group to Recommend Priorities for IARC Monographs during 2015-2019 met in April 2014. Though nominations for the review were solicited, a substance must meet two criteria to be eligible for review by the IARC Monographs: there must already be some evidence of carcinogenicity of the substance, and there must be evidence that humans are exposed to the substance.

53. IARC set glyphosate for review in 2015-2016. IARC uses five criteria for determining priority in reviewing chemicals. The substance must have a potential for direct impact on public health; scientific literature to support suspicion of carcinogenicity; evidence of significant human exposure; high public interest and/or potential to bring clarity to a controversial area and/or reduce public anxiety or concern; and related agents similar to one given high priority by the above considerations. Data reviewed is sourced preferably from publicly accessible, peer-reviewed data.

54. On March 24, 2015, after its cumulative review of human, animal, and DNA studies for more than one (1) year, many of which have been in Monsanto’s possession since as early as 1985, the IARC’s working group published its conclusion that the glyphosate contained in Monsanto’s Roundup herbicide, is a Class 2A “probable carcinogen” as demonstrated by the mechanistic evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in animals.

55. The IARC's full Monograph was published on July 29, 2015, and established glyphosate as a class 2A probable carcinogen to humans. According to the authors, glyphosate demonstrated sufficient mechanistic evidence (genotoxicity and oxidative stress) to warrant a 2A classification based on evidence of carcinogenicity in humans and animals.

56. The IARC Working Group found an increased risk between exposure to glyphosate and Non-Hodgkin's Lymphoma ("NHL") and several subtypes of NHL, and the increased risk continued after adjustment for other pesticides.

57. The IARC also found that glyphosate caused DNA and chromosomal damage in human cells.

EARLIER EVIDENCE OF THE DANGERS OF GLYPHOSATE

58. Despite the new classification by the IARC, Monsanto has had ample evidence of glyphosate and Roundup's genotoxic properties for decades.

59. Genotoxicity refers to chemical agents capable of damaging the DNA within a cell through genetic mutations, which is a process that is believed to lead to cancer.

60. In 1997, Chris Clements published "Genotoxicity of select herbicides in *Rana catesbeiana* tadpoles using the alkaline single-cell gel DNA electrophoresis (comet) assay."

61. The study found that tadpoles exposed to Roundup showed significant DNA damage when compared with unexposed control animals.

62. Both human and animal studies have shown that glyphosate and glyphosate-base formulations such as Roundup can induce oxidative stress.

63. Oxidative stress and associated chronic inflammation are believed to be involved in carcinogenesis.

64. The IARC Monograph notes that "[s]trong evidence exists that glyphosate,

AMPA and glyphosate-based formulations can induce oxidative stress.”

65. In 2006, César Paz-y-Miño published a study examining DNA damage in human subjects exposed to glyphosate.

66. The study produced evidence of chromosomal damage in blood cells showing significantly greater damage after exposure to glyphosate than before in the same individuals, suggesting that the glyphosate formulation used during aerial spraying had a genotoxic effect on exposed individuals.

67. The IARC Monograph reflects the volume of evidence of glyphosate pesticides’ genotoxicity noting “[t]he evidence of genotoxicity caused by glyphosate-based formulations is strong.”

68. Despite knowledge to the contrary, Monsanto denies that Roundup is genotoxic.

69. In addition to glyphosate and Roundup’s genotoxic properties, Monsanto has long been aware of glyphosate’s carcinogenic properties.

70. Glyphosate and Roundup in particular have long been associated with carcinogenicity and the development of numerous forms of cancer, including, but not limited to, NHL, Hodgkin’s Lymphoma, Multiple Myeloma, and soft tissue sarcoma.

71. Monsanto has known of this association since the mid-1980’s and numerous human and animal studies evidence the carcinogenicity of glyphosate and/or Roundup.

72. In 1985, the EPA studied the effects of glyphosate in mice finding a dose related response in male mice linked to renal tubal adenomas, a rare tumor. The study concluded the glyphosate was oncogenic.

73. In 2003, Lennart Hardell and Mikael Eriksson published the results of two case controlled studies on pesticides as a risk factor for NHL and hairy cell leukemia.

74. The study concluded that glyphosate had the most significant relationship to NHL among all herbicide studies with an increased odds ratio of 3.11.

75. In 2003, AJ De Roos published a study examining the pooled data of mid-western farmers, examining pesticides and herbicides as risk factors for NHL.

76. The study, which controlled for potential confounders, found a relationship between increased NHL incidence and glyphosate.

77. In 2008, Mikael Eriksson published a population based case-control study of exposure to various pesticides as a risk factor for NHL.

78. This strengthened previous associations between glyphosate and NHL.

79. In spite of this knowledge, Monsanto continued to issue broad and sweeping statements suggesting that Roundup was, and is, safer than ordinary household items such as table salt, despite a lack of scientific support for the accuracy and validity of these statements and, in fact, voluminous evidence to the contrary.

80. On information and belief, these statements and representations have been made with the intent of inducing Plaintiff, the agricultural community, and the public at large to purchase, and increase the use of, Roundup for Monsanto's pecuniary gain, and in fact did induce the Plaintiff to use Roundup.

81. Monsanto made these statements with complete disregard and reckless indifference to the safety of the Plaintiff and the general public.

82. Notwithstanding Monsanto's representations, scientific evidence has established a clear association between glyphosate and genotoxicity, inflammation, and an increased risk of many cancers, including, but not limited to, NHL, Multiple Myeloma, and soft tissue sarcoma.

83. Monsanto knew or should have known that glyphosate is associated with an

increased risk of developing cancer, including, but not limited to, NHL, Multiple Myeloma, and soft tissue sarcomas.

84. Monsanto failed to appropriately and adequately inform and warn the Plaintiff of the serious and dangerous risks associated with the use of and exposure to glyphosate and/or Roundup, including, but not limited to, the risk of developing NHL, as well as other severe and personal injuries, which are permanent and/or long-lasting in nature, cause significant physical pain and mental anguish, diminished enjoyment of life, and the need for medical treatment, monitoring, and/or medications.

85. Despite the IARC's classification of glyphosate as a class 2A probable carcinogen, Monsanto continues to maintain that glyphosate and/or Roundup is safe, non-carcinogenic, non-genotoxic, and falsely warrant to users and the general public that independent experts and regulatory agencies agree that there is no evidence of carcinogenicity or genotoxicity in glyphosate and Roundup.

86. Monsanto has claimed and continues to claim that Roundup is safe, non-carcinogenic, and non-genotoxic.

87. Monsanto claims on its website that "[r]egulatory authorities and independent experts around the world have reviewed numerous long-term/carcinogenicity and genotoxicity studies and agree that there is no evidence that glyphosate, the active ingredient in Roundup brand herbicides and other glyphosate-based herbicides, causes cancer, even at very high doses, and that it is not genotoxic."¹¹

88. Ironically, the primary source of this statement is a 1986 report by the WHO, the same organization that now considers glyphosate to be a probable carcinogen.

¹¹ *Backgrounder – Glyphosate: No Evidence of Carcinogenicity*, updated November 2014, available at www.monsanto.com/glyphosate/documents/no-evidence-of-carcinogenicity.pdf

89. Glyphosate, and Monsanto's Roundup products in particular, have long been associated with serious side effects and many regulatory agencies around the globe have banned or are currently banning the use of glyphosate herbicide products.

90. Monsanto's statements proclaiming the safety of Roundup and disregarding its dangers misled the Plaintiff.

91. Despite Monsanto's knowledge that Roundup was associated with an elevated risk of developing cancer, Monsanto's promotional campaigns focused on Roundup's purported "safety profile."

92. Monsanto's failure to adequately warn the Plaintiff, resulted in (1) the Plaintiff using and being exposed to glyphosate instead of using another acceptable and safe method of controlling unwanted weeds and pests; and (2) scientists and physicians failing to warn and instruct consumers about the risk of cancer, including NHL, and other injuries associated with Roundup.

93. Monsanto failed to seek modification of the labeling of Roundup to include relevant information regarding the risks and dangers associated with Roundup exposure.

94. Monsanto's failure to appropriately warn and inform the EPA has resulted in inadequate warnings in safety information presented directly to users and consumers.

95. Monsanto's failure to appropriately warn and inform the EPA has resulted in the absence of warning or caution statements that are adequate to protect health and environment.

96. Monsanto's failure to appropriately warn and inform the EPA has resulted in the directions for use that are not adequate to protect health and environment.

97. By reason of the foregoing acts and omissions, the Plaintiffs seek compensatory damages as a result of the Plaintiff's use of, and exposure to, Roundup, which caused or was a

substantial contributing factor in causing the Plaintiff to suffer from cancer, specifically NHL, and the Plaintiff suffered severe and personal injuries that are permanent and lasting in nature, physical pain and mental anguish, including diminished enjoyment of life.

98. By reason of the foregoing, the Plaintiff is severely and permanently injured.

99. By reason of the foregoing acts and omissions, the Plaintiff has endured and continues to suffer, emotional and mental anguish, medical expenses, and other economic and non-economic damages, as a result of Monsanto's actions and inactions.

PLAINTIFF'S EXPOSURE TO ROUNDUP

100. Plaintiff Robert Solomon was exposed to Roundup in Sharon, Massachusetts from approximately 1978 through 2000 while spraying Roundup at his personal residence. During this time, he sprayed the product each year in the warmer months, from May to September, approximately eight (8) times each calendar year. He used the product for residential purposes in accordance with the directions supplied to him by the manufacturer, the Defendant, to control and kill weeds during gardening and lawn maintenance. Further, he used the product in a similar manner in Lexington, Massachusetts from approximately 2005 through 2008.

101. As a direct and proximate result of the tortious misconduct of the Defendant, which is set forth herein, Plaintiff Robert Solomon developed non-Hodgkin's Lymphoma. He suffered and continues to suffer from serious personal injuries, great pain of body and mind, and severe mental anguish and distress. He has been prevented from transacting business and taking care of his home and his family; he has been required to undergo medical treatment, care and expense. His earning capacity has been greatly impaired. Further, his family has been deprived of his services, protection, care, assistance, society, companionship, comfort, affection, guidance, counsel and advice. Plaintiff is entitled to damages to fully compensate for all of these damages

and all other damages arising from Plaintiff's non-Hodgkin's Lymphoma.

COUNT I
NEGLIGENCE

102. Plaintiff incorporates by reference each and every allegation set forth in the preceding paragraphs as if fully stated herein.

103. Defendant is in the business of designing, manufacturing, marketing, packaging, selling, and/or distributing products used in the agricultural industry. The products used by the Plaintiff and to which the Plaintiff was exposed to were designed, produced, manufactured, marketed, sold and/or otherwise put into the stream of commerce by the Defendant, and were used for their intended purpose.

104. Defendant Monsanto had a duty to exercise reasonable care in the designing, researching, testing, manufacturing, marketing, supply, promoting, packaging, sale, and/or distribution of Roundup into the stream of commerce, including a duty to assure that the product would not cause users to suffer unreasonable, dangerous side effects.

105. Monsanto failed to exercise reasonable care in the designing, researching, testing, manufacturing, marketing, supplying, promoting, packaging, sale, testing, quality assurance, quality control, and/or distribution of Roundup into interstate commerce in that Monsanto knew or should have known that using Roundup created a high risk of unreasonable, dangerous side effects, including, but not limited to, the development of NHL, as well as other severe and personal injuries that are permanent and lasting in nature, physical pain and mental anguish, including diminished enjoyment of life, as well as need for lifelong medical treatment, monitoring, and/or medications.

106. The negligence by Defendant, its agents, servants, and/or employees, included but not limited to the Following act and/or omissions:

- a. Manufacturing, producing, promoting, formulating, creating, and/or designing Roundup without thoroughly testing it;
- b. Failing to test Roundup and/or failing to adequately, sufficiently, and properly test Roundup;
- c. Not conducting sufficient testing programs to determine whether or not Roundup was safe for use; in that Monsanto knew or should have known that Roundup was unsafe and unfit for use by reason of the dangers to its users;
- d. Not conducting sufficient testing programs and studies to determine Roundup's carcinogenic properties even after Monsanto had knowledge that Roundup is, was, or could be carcinogenic;
- e. Failing to conduct sufficient testing programs to determine the safety of "inert" ingredients and/or adjuvants contained within Roundup, and the propensity of these ingredients to render Roundup toxic, increase the toxicity of Roundup, whether these ingredients are carcinogenic, magnify the carcinogenic properties of Roundup, and whether or not "inert" ingredients and/or adjuvants were safe for use;
- f. Negligently failing to adequately and correctly warn the Plaintiff, the public, the medical, and agricultural professions, and the EPA of the dangers of Roundup;
- g. Negligently failing to petition the EPA to strengthen the warnings associated with Roundup;
- h. Failing to provide adequate cautions and warnings to protect the health of users, handlers, applicators, and persons who would reasonably and foreseeably come into contact with Roundup;
- i. Negligently marketing, advertising, and recommending the use of Roundup without sufficient knowledge as to its dangerous propensities;
- j. Negligently representing that Roundup was safe for use for its intended purpose, and/or that Roundup was safer than ordinary and common items such as table salt, when, in fact, it was unsafe;
- k. Negligently representing that Roundup had equivalent safety and efficacy as other forms of herbicides;
- l. Negligently designing Roundup in a manner that was dangerous to its users;

- m. Negligently manufacturing Roundup in a manner that was dangerous to its users;
- n. Negligently producing Roundup in a manner that was dangerous to its users;
- o. Negligently formulating Roundup in a manner that was dangerous to its users;
- p. Concealing information from the Plaintiff while knowing that Roundup was unsafe, dangerous, and/or non-conforming with EPA regulations;
- q. Improperly concealing and/or misrepresenting information from the Plaintiff, scientific and medical professionals, and/or the EPA, concerning the severity of risks and dangers of Roundup compared to other forms of herbicides; and
- r. Negligently selling Roundup with a false and misleading label.

107. Monsanto under-reported, underestimated, and downplayed the serious dangers of Roundup.

108. Monsanto negligently and deceptively compared the safety risks and/or dangers of Roundup with common everyday foods such as table salt, and other forms of herbicides.

109. Monsanto was negligent and/or violated Massachusetts law in the designing, researching, supplying, manufacturing, promoting, packaging, distributing, testing, advertising, warning, marketing, and selling of Roundup in that it:

- a. Failed to use ordinary care in the designing and manufacturing Roundup so as to avoid the aforementioned risks to individuals when Roundup was used as an herbicide;
- b. Failed to accompany its product with proper and/or accurate warnings regarding all possible adverse side effects associated with the use of Roundup;
- c. Failed to accompany its product with proper warnings regarding all possible adverse side effects concerning the failure and/or malfunction of Roundup;
- d. Failed to accompany its product with accurate warnings regarding the risks of all possible adverse side effects concerning Roundup;

- e. Failed to warn the Plaintiff of the severity and duration of such adverse effects, as the warnings given did not accurately reflect the symptoms, or severity of the side effects including, but not limited to, the development of NHL;
- f. Failed to conduct adequate testing, clinical testing and post-marketing surveillance to determine the safety of Roundup;
- g. Failed to conduct adequate testing, clinical testing, and post-marketing surveillance to determine the safety of Roundup's "inert" ingredients and/or adjuvants;
- h. Negligently misrepresented the evidence of Roundup's genotoxicity and carcinogenicity; and
- i. Was otherwise careless and/or negligent.

110. Despite the fact that Monsanto knew or should have known that Roundup caused, or could cause, unreasonably dangerous side effects, Defendant continues to market, manufacture, distribute, and/or sell Roundup to consumers, including the Plaintiff.

111. Defendant knew or should have known that consumers such as the Plaintiff would foreseeably suffer injury as a result of Monsanto's failure to exercise ordinary care.

112. Defendant's violations of law and/or negligence were the proximate cause of the Plaintiff's injuries, harm and economic loss, which the Plaintiff suffered and will continue to suffer.

113. As a result of the foregoing acts and omissions, the Plaintiff suffered life-threatening NHL, and severe personal injuries, which are permanent and lasting in nature, physical pain and mental anguish, including diminished enjoyment of life, as well as financial expenses for hospitalization and medical care.

114. WHEREFORE, the Plaintiff respectfully requests that this Court enter judgment in the Plaintiff's favor for compensatory damages, together with interest, costs herein incurred, attorney's fees and all relief as this Court deems just and proper.

COUNT II
BREACH OF EXPRESS AND IMPLIED WARRANTIES
(DEFECTIVE DESIGN AND FAILURE TO WARN)

115. Plaintiff incorporates by reference each and every allegation set forth in the preceding paragraphs as if fully stated herein.

116. At all times relevant to this litigation, Monsanto engaged in the business of testing, developing, designing, manufacturing, marketing, selling, distributing, and promoting its Roundup products, which are defective and unreasonably dangerous to consumers, including the Plaintiff, thereby placing Roundup products into the stream of commerce. These actions were under Defendant's ultimate control and supervision.

117. At all times relevant to this litigation, Monsanto was engaged in the business of marketing, selling, distributing, and promoting Roundup products, which are defective and unreasonably dangerous to consumers, including the Plaintiff, thereby placing Roundup products into the stream of commerce.

118. Plaintiff, Robert Solomon, was a person whom Monsanto could reasonably have expected to use, consume or be affected by Defendant's products.

119. At all relevant times, Monsanto expressly and impliedly represented and warranted to purchasers of its Roundup products, by and through statements made in labels, publications, package inserts, and other writing materials intended for consumers and the general public, that its Roundup products were safe to human health and the environment, effective, fit, safe, and proper for their ordinary and particular purpose for which they were manufactured, sold, supplied or distributed. Defendant advertised, labeled, marketed, and promoted Roundup products, representing the quality to consumers and the public so as to induce their purchase or use, thereby making an express and implied warranty that Roundup products would conform to

the representations.

120. These express and implied representations include incomplete warnings and instructions that purport, but fail, to include the complete array of risks associated with use of and/or exposure to Roundup and glyphosate. Monsanto knew and/or should have known that the risks expressly included in Roundup warnings and labels did not and do not accurately or adequately set forth the risks of developing the serious injuries complained of herein. Nevertheless, Defendant expressly and impliedly represented that its Roundup products were safe and effective, including for use as agricultural herbicides.

121. The representations about Roundup, as set forth herein, contained or constituted affirmations of fact or promises made by the seller to the buyer, which related to the goods and became part of the basis of the bargain, creating an express and implied warranty that the goods would conform to the representations.

122. Monsanto placed Roundup products into the stream of commerce for sale and recommended their use to consumers and the public without adequately warning of the true risks of developing the injuries associated with the use of and exposure to Roundup and its active ingredient glyphosate.

123. Defendant breached these warranties because, among other things, its Roundup products were defective, dangerous, unfit for use, did not contain labels representing the true and adequate nature of the risks associated with their use, and were not merchantable or safe for their intended, ordinary, and foreseeable use and purpose. Specifically, Defendant breached the warranties in the following ways;

- a. Monsanto represented through its labeling, advertising, and marketing materials that its Roundup products were safe, and fraudulently withheld and concealed information about the risks of serious injury associated with the use of and/or exposure to Roundup and glyphosate by expressly

limiting the risks associated with use and/or exposure within its warnings and labels; and

- b. Monsanto represented that its Roundup products were safe for use and fraudulently concealed information demonstrating that glyphosate, the active ingredient in Roundup, had carcinogenic properties, and that its Roundup products, therefore, were not safer than alternatives available on the market.

124. The Plaintiff was exposed to the labels on the Roundup products that he mixed and applied.

125. Monsanto had sole access to material facts concerning the nature of the risks associated with its Roundup products as expressly stated within its warnings and labels, and knew that consumers and users such as the Plaintiff could not have reasonably discovered that the risks expressly included in Roundup warnings and labels were inadequate and inaccurate.

126. The Plaintiff had no knowledge of the falsity or incompleteness of Defendant's statements and representations concerning Roundup.

127. The Plaintiff used and/or was exposed to the use of Roundup as researched, developed, designed, tested, formulated, manufactured, inspected, labeled, distributed, packaged, marketed, promoted, sold, or otherwise released into the stream of commerce by Defendant.

128. Had the warnings and labels for Roundup products accurately and adequately set forth the true risks associated with the use of such products, including the Plaintiff's injuries, rather than expressly excluding such information and warranting that the products were safe for their intended use, the Plaintiff could have avoided the injuries complained of herein.

129. As a direct and proximate result of Defendant Monsanto's wrongful acts and omissions, the Plaintiff has suffered severe injuries. The Plaintiff has endured pain and suffering, has suffered economic loss (including significant expenses for medical care and treatment), he will continue to suffer economic loss as he will incur further expenses in the future, and his

ability to enjoy a normal life has been adversely affected.

130. WHEREFORE, the Plaintiff respectfully requests that this Court enter judgment in the Plaintiff's favor for compensatory damages and punitive damages, together with interest, costs herein incurred, attorney's fees and all relief as this Court deems just and proper.

COUNT III
MISREPRESENTATION

131. Plaintiff incorporates by reference each and every allegation set forth in the preceding paragraphs as if fully stated herein.

132. At all relevant times herein, Defendant falsely represented to consumers, including Plaintiff, that Roundup was safe to use.

133. As the New York Attorney General determined in 1996, the Defendant made deceptive and misleading representations about the human and environmental safety of Roundup including the following:

- a. Remember that environmentally friendly Roundup herbicide is biodegradable. It won't build up in the soil so you can use Roundup with confidence along customers' driveways, sidewalks and fences.
- b. And remember that Roundup is biodegradable and won't build up in the soil. That will give you the environmental confidence you need to use Roundup everywhere you've got a weed, brush, edging or trimming problem.
- c. Roundup biodegrades into naturally occurring elements.
- d. Remember that versatile Roundup herbicide stays where you put it. That means there's no washing or leaching to harm customers' shrubs or other desirable vegetation.
- e. This non-residual herbicide will not wash or leach in the soil. It ... stays where you apply it.
- f. You can apply Accord with "confidence because it will stay where you put it" it bonds tightly to soil particles, preventing leaching. Then, soon after application, soil microorganisms biodegrade Accord into natural products.

- g. Glyphosate is less toxic to rats than table salt following acute oral ingestion.
- h. Glyphosate's safety margin is much greater than required. It has over a 1,000 fold-safety margin in food and over a 700-fold safety margin for workers who manufacture it or use it.
- i. You can feel good about using herbicides by Monsanto. They carry a toxicity category rating of 'practically non-toxic' as it pertains to mammals, birds and fish.
- j. "Roundup can be used where kids and pets will play and breaks down into natural material." This ad depicts a person with his head in the ground and a pet dog standing in an area which has been treated with Roundup.¹²

134. The Defendant falsely represented that Roundup was "safer than table salt" and "practically non-toxic" to mammals, birds, and fish.

135. Defendant made the aforesaid representations to consumers and the general public as a whole, including the Plaintiff, while knowing the product contained carcinogenic properties.

136. The aforesaid representations were made to consumers, including Plaintiff, with the intent that these representations induce behavior in reliance, namely to purchase and use the Defendant's Roundup product.

137. Despite its knowledge that Roundup was harmful and contained carcinogenic properties, and considerably more dangerous than glyphosate alone, Monsanto failed to warn consumers and the general public of this and still continues to promote Roundup as safe.

138. As a direct and proximate result of the actions and inactions of Monsanto Company as set forth above, the Plaintiff has suffered severe injuries. The Plaintiff has endured pain and suffering, has suffered economic loss (including significant expenses for medical care and treatment), and will continue to incur these expenses in the future.

¹² Attorney General of the State of New York, In the Matter of Monsanto Company, Assurance of Discontinuance Pursuant to Executive Law § 63(15)(Nov. 1996).

139. WHEREFORE, the Plaintiff respectfully requests that this Court enter judgment in the Plaintiff's favor for compensatory damages and punitive damages, together with interest, costs herein incurred, attorney's fees and all relief as this Court deems just and proper.

DEMAND FOR TRIAL BY JURY

140. The Plaintiff hereby demand a trial by jury on each claim asserted or hereafter asserted by the Plaintiffs and on each defense asserted or hereafter asserted by the defendants.

PRAYER FOR RELIEF

141. WHEREFORE, the Plaintiff, Robert Solomon, requests that this Court enter a judgment in his favor against Monsanto, awarding as follows:

- A. compensatory damages in an amount to be proven at trial;
- B. punitive damages;
- C. costs including reasonable attorneys' fees, court costs, and other litigation expenses; and
- D. any other relief the Court may deem just and proper.

Dated: August 17, 2022

Respectfully submitted,
The Plaintiff,
By his attorneys,

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